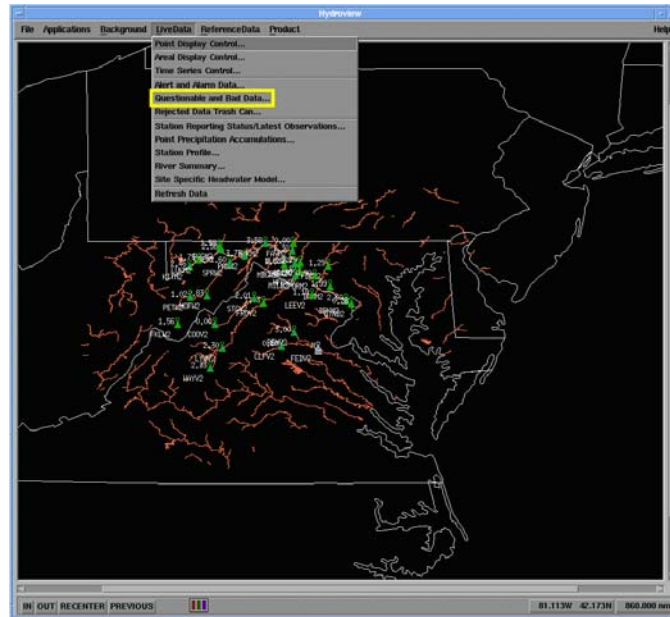# Quality Control and Alert/Alarm Limits (version 5.1.2)

Questionable and Bad Data

The Questionable and Bad Data window can be used to display data that have been marked as questionable or bad[1] by the quality control processes. The user can access this display from the Root Window in HydroView by clicking on the LiveData pull down menu. Click on Questionable and Bad Data. No information or data can be typed or edited in this window except entering the station location, setting the number of days back, and deleting highlighted rows.

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[1] Data flagged as bad may be viewed in the Rejected Data window. A shef token defined in the **/awips/hydroapps/.Apps_defaults** or **/awips/hydroapps/.Apps_default_site** file is used to determine if data flagged as bad is posted to the rejected data table or the actual physical element table in the database.

The **Filter By:** option is used to filter data anomalies list by: 1) location (type the location id and press enter) and/or 2) by a certain observation type (click on an observation type in the pull down list).
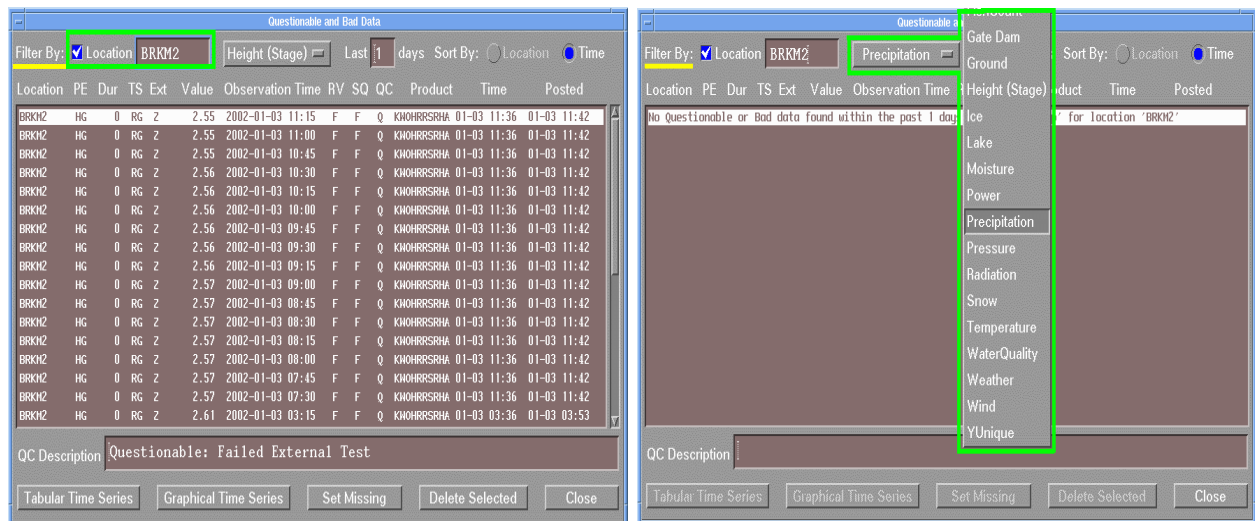
In the example below, precipitation was selected. There was no questionable or bad data found for precipitation. The following message will then read... "No questionable or bad data found within the past 1 days in the table 'Precipitation'" The message talks about ...the past 1 days in the table... which will be talked about next. The user may select a certain location, for a certain observation type, too, if so desired. The default is to display all locations.
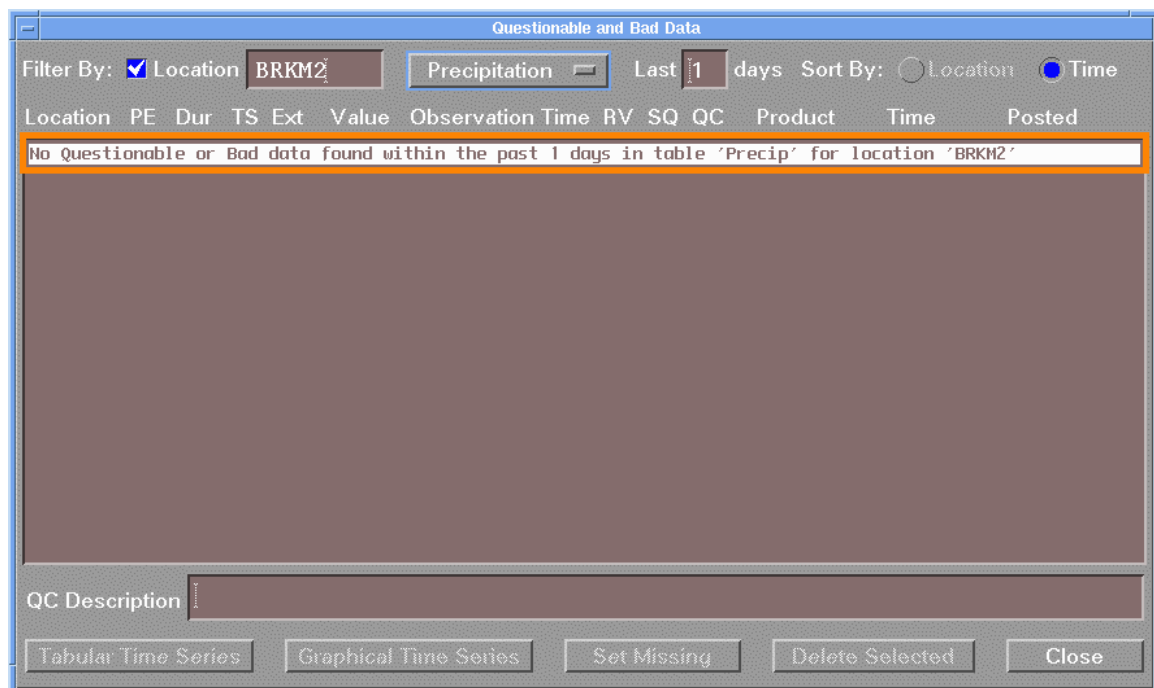
Next to **Filter By:** is an option to select number of days back the computer should look in the list to display data.   **Last___days** is the prompt for the user to type in a number to search, like a day or 30 days of questionable or bad data. After entering the number of days back to search, the user must hit the enter key for the search to take place. Last the **Sort By:** option allows the user to display the data in a specified order (location or time).

The header of the table displays the following information:
Location - location id
PE - physical element
Dur - duration code
TS - type source
Ext - extremum
Value - the observed value
Observation Time - date and time of the observed value
RV - revision or not to the data: T = revised, F = no revision
SQ - SHEF qualifier
QC - quality control code: Q = questionable, B = bad, G = good
Product - product id
Time - date and time of the product
Posted - date and time of the data posted to the database

Within the table the user may click on an item to highlight it and display the quality control data anomaly description. The description can be read in the QC Description section below the table. The description gives the user a general idea why the data maybe questionable or bad. At the bottom of the screen the user may view the highlighted item by the Tabular Time Series or Graphical Time Series. The option Set Missing allows the user to change the data from its numerical value to "missing". He/She may delete highlighted data rows by clicking on Delete Selected. The Close option is to exit the window.